

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID: ssspta1617srh

PASSWORD :

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 May 12 EXTEND option available in structure searching
NEWS 4 May 12 Polymer links for the POLYLINK command completed in REGISTRY
NEWS 5 May 27 New UPM (Update Code Maximum) field for more efficient patent
SDIs in CAplus
NEWS 6 May 27 CAplus super roles and document types searchable in REGISTRY
NEWS 7 Jun 28 Additional enzyme-catalyzed reactions added to CASREACT
NEWS 8 Jun 28 ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,
and WATER from CSA now available on STN(R)
NEWS 9 Jul 12 BEILSTEIN enhanced with new display and select options,
resulting in a closer connection to BABS
NEWS 10 Jul 30 BEILSTEIN on STN workshop to be held August 24 in conjunction
with the 228th ACS National Meeting
NEWS 11 AUG 02 IFIPAT/IFIUDB/IFICDB reloaded with new search and display
fields
NEWS 12 AUG 02 CAplus and CA patent records enhanced with European and Japan
Patent Office Classifications
NEWS 13 AUG 02 STN User Update to be held August 22 in conjunction with the
228th ACS National Meeting
NEWS 14 AUG 02 The Analysis Edition of STN Express with Discover!
(Version 7.01 for Windows) now available

NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 11:16:24 ON 02 AUG 2004

=> FIL STNGUIDE
COST IN U.S. DOLLARS

FULL ESTIMATED COST

| | |
|---------------------|------------------|
| SINCE FILE
ENTRY | TOTAL
SESSION |
| 0.21 | 0.21 |

FILE 'STNGUIDE' ENTERED AT 11:16:27 ON 02 AUG 2004
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY, JAPAN SCIENCE
AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jul 30, 2004 (20040730/UP).

FILE 'REGISTRY' ENTERED AT 11:16:36 ON 02 AUG 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 JUL 2004 HIGHEST RN 719995-95-6
DICTIONARY FILE UPDATES: 30 JUL 2004 HIGHEST RN 719995-95-6

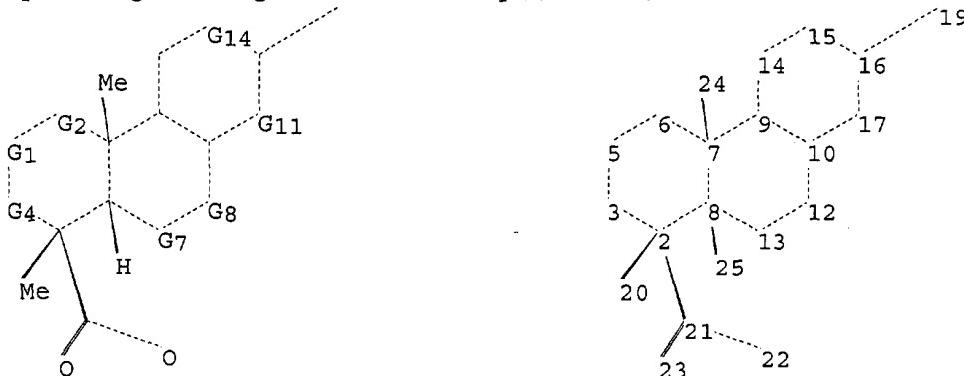
TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

```
=> Uploading C:\Program Files\Stnexp\Queries\09992550 final.str
```



```
chain nodes :  
20 21 22 23 24 25  
ring nodes :  
2 3 5 6 7 8 9 10 12 13 14 15 16 17  
ring/chain nodes :  
19  
chain bonds :  
2-20 2-21 7-24 8-25 16-19 21-22 21-23  
ring bonds :  
2-3 2-8 3-5 5-6 6-7 7-8 7-9 8-13 9-10 9-14 10-12 10-17 12-13 14-15  
15-16 16-17
```

exact/norm bonds :

2-3 2-8 2-20 2-21 3-5 5-6 6-7 7-8 7-9 7-24 8-13 8-25 9-10 9-14 10-12
10-17 12-13 14-15 15-16 16-17 16-19 21-22 21-23

G1:C,O,S,N,P

G2:C,O,S,N,P,Si

G3:C,O,S,N,P

G4:C,O,S,N,P

G5:C,O,S,N,P

G6:C,O,S,N,P

G7:C,O,S,N,P

G8:C,O,S,N,P

G9:C,O,S,N,P

G10:C,O,S,N,P

G11:C,O,S,N,P

G12:C,O,S,N,P

G13:C,O,S,N,P

G14:C,O,S,N,P

Match level :

2:CLASS 3:Atom 5:CLASS 6:Atom 7:Atom 8:CLASS 9:CLASS 10:CLASS 12:CLASS
13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 19:CLASS 20:CLASS 21:Atom
22:Atom 23:CLASS 24:CLASS 25:CLASS

Stereo Bonds:

20-2 (Single Wedge).
21-2 (Single Hash).
24-7 (Single Wedge).
25-8 (Single Hash).

Stereo Chiral Centers:

2 (Parity=Even)
7 (Parity=Even)
8 (Parity=Even)

Stereo RSS Sets:

Type=Relative (Default). 3 Nodes= 2 7 8

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 11
SAMPLE SEARCH INITIATED 11:17:15 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1373 TO ITERATE

72.8% PROCESSED 1000 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

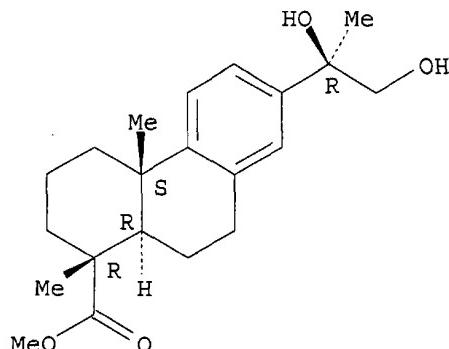
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 25238 TO 29682
PROJECTED ANSWERS: 1996 TO 3386

L2 50 SEA SSS SAM L1

=> d scan

L2 50 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 7-(1,2-dihydroxy-1-methylethyl)-
1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-, methyl ester,
[1R-[1 α ,4a β ,7(R*),10a α]]- (9CI)
MF C21 H30 O4

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

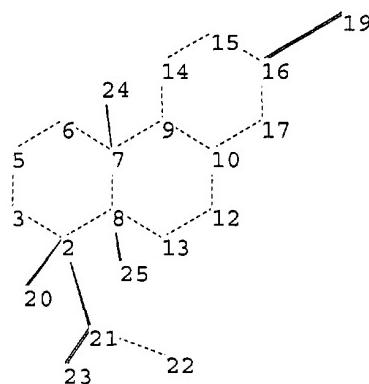
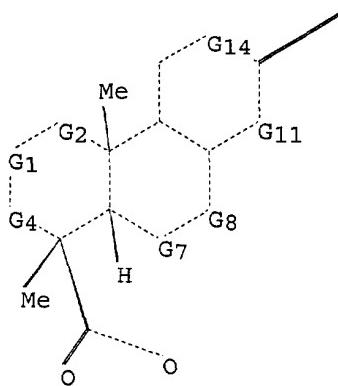
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> s 11 full
FULL SEARCH INITIATED 11:17:41 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 27435 TO ITERATE

100.0% PROCESSED 27435 ITERATIONS 2810 ANSWERS
SEARCH TIME: 00.00.04

L3 2810 SEA SSS FUL L1

=>
Uploading C:\Program Files\Stnexp\Queries\09992550 final b.str



chain nodes :

20 21 22 23 24 25

ring nodes :

2 3 5 6 7 8 9 10 12 13 14 15 16 17

ring/chain nodes :

19

chain bonds :

2-20 2-21 7-24 8-25 16-19 21-22 21-23

ring bonds :

2-3 2-8 3-5 5-6 6-7 7-8 7-9 8-13 9-10 9-14 10-12 10-17 12-13 14-15

15-16 16-17

exact/norm bonds :

2-3 2-8 2-20 2-21 3-5 5-6 6-7 7-8 7-9 7-24 8-13 8-25 9-10 9-14 10-12

10-17 12-13 14-15 15-16 16-17 16-19 21-22 21-23

G1:C,O,S,N,P

G2:C,O,S,N,P,Si

G3:C,O,S,N,P

G4:C,O,S,N,P

G5:C,O,S,N,P

G6:C,O,S,N,P

G7:C,O,S,N,P

G8:C,O,S,N,P

G9:C,O,S,N,P

G10:C,O,S,N,P

G11:C,O,S,N,P

G12:C,O,S,N,P

G13:C,O,S,N,P

G14:C,O,S,N,P

Match level :

2:CLASS 3:Atom 5:CLASS 6:Atom 7:Atom 8:CLASS 9:CLASS 10:CLASS 12:CLASS
 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 19:CLASS 20:CLASS 21:Atom
 22:Atom 23:CLASS 24:CLASS 25:CLASS

Stereo Bonds:

20-2 (Single Wedge).
21-2 (Single Hash).
24-7 (Single Wedge).
25-8 (Single Hash).

Stereo Chiral Centers:

2 (Parity=Even)
7 (Parity=Even)
8 (Parity=Even)

Stereo RSS Sets:

Type=Relative (Default). 3 Nodes= 2 7 8

L4 STRUCTURE UPLOADED

=> d 14
L4 HAS NO ANSWERS
L4 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s 14
SAMPLE SEARCH INITIATED 11:19:15 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1373 TO ITERATE

72.8% PROCESSED 1000 ITERATIONS 2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 25238 TO 29682
PROJECTED ANSWERS: 2 TO 153

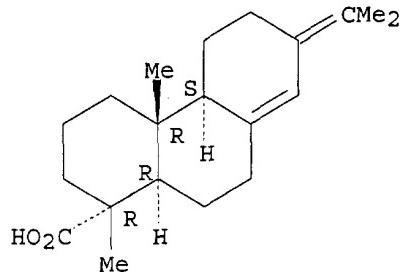
L5 2 SEA SSS SAM L4

=> d scan

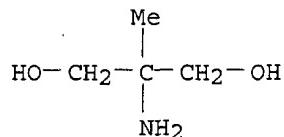
L5 2 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
1,4a-dimethyl-7-(1-methylethyldene)-, [1R-(1a,4aβ,4bα,10
aα)], compd. with 2-amino-2-methyl-1,3-propanediol (1:1) (9CI)
MF C20 H30 O2 . C4 H11 N O2

CM 1

Absolute stereochemistry.



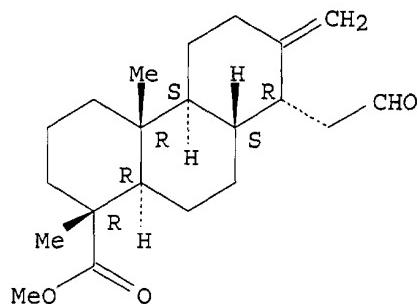
CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L5 2 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-methylene-8-(2-oxoethyl)-, methyl ester, [1R-(1 α ,4a β ,4b α ,8 α ,8a.
 beta.,10a α)]- (9CI)
 MF C21 H32 O3

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> 0

0 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
 For a list of commands available to you in the current file, enter
 "HELP COMMANDS" at an arrow prompt (>).

=> s 14 full

FULL SEARCH INITIATED 11:19:38 FILE 'REGISTRY'
 FULL SCREEN SEARCH COMPLETED - 27435 TO ITERATE

100.0% PROCESSED 27435 ITERATIONS
SEARCH TIME: 00.00.01

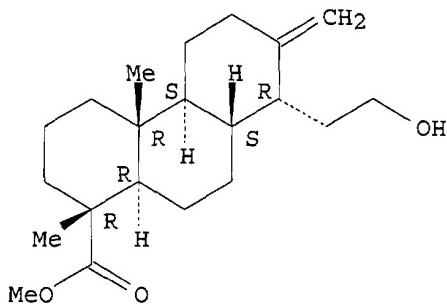
62 ANSWERS

L6 62 SEA SSS FUL L4

=> d scan

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, tetradecahydro-8-(2-hydroxyethyl)-1,4a-dimethyl-7-methylene-, methyl ester, [1R-(1 α ,4a β ,4b α ,8.a α)-pha., 8a β ,10a α]- (9CI)
MF C21 H34 O3

Absolute stereochemistry.

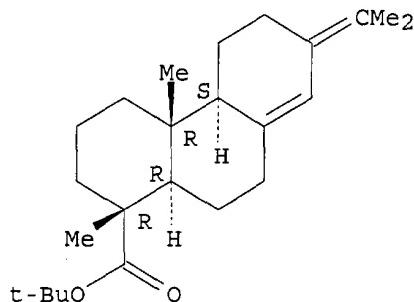


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):61

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, 1,1-dimethylethyl ester,
[1R-(1 α ,4a β ,4b α ,10a α)]- (9CI)
MF C24 H38 O2

Absolute stereochemistry.

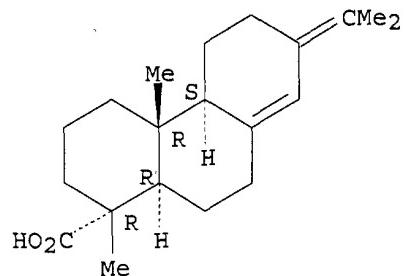


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

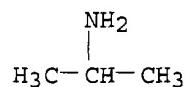
L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, [1R-(1 α ,4a β ,4b α ,10a α)]-, compd. with 2-propanamine (1:1) (9CI)
MF C20 H30 O2 . C3 H9 N

CM 1

Absolute stereochemistry.

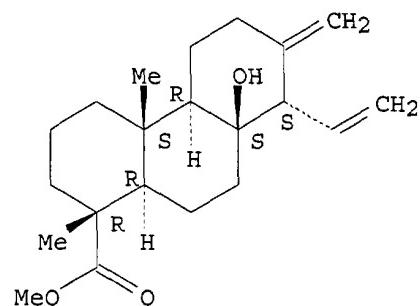


CM 2



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-8a-hydroxy-1,4a-dimethyl-7-methylene-, methyl ester, [1R-(1 α ,4a β ,4b α ,8.al pha.,8a β ,10a α)]- (9CI)
MF C21 H32 O3

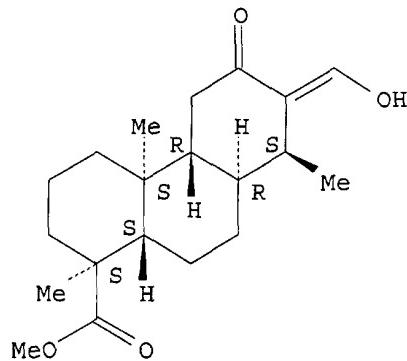
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Podocarp-15-oic acid, 13-(hydroxymethylene)-14 α -methyl-12-oxo-, methyl ester, (\pm)- (8CI)
MF C20 H30 O4

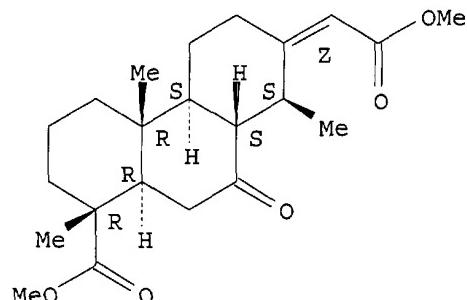
Relative stereochemistry.
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-oxo-, methyl ester, [1R-(1 α ,4a β ,4b α ,7Z,8 β ,8a β ,10a α)]- (9CI)
 MF C22 H32 O5

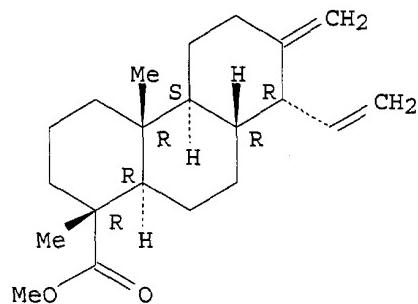
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-, methyl ester, [1R-(1 α ,4a β ,4b α ,8 α ,8a,bet α ,10a α)]- (9CI)
 MF C21 H32 O2

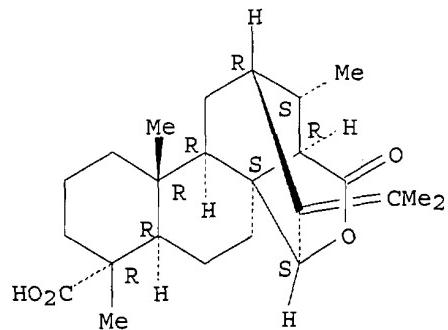
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Atisan-18-oic acid, 15 β -carboxy-14-hydroxy-13-isopropylidene-,
 γ -lactone (8CI)
 MF C24 H34 O4

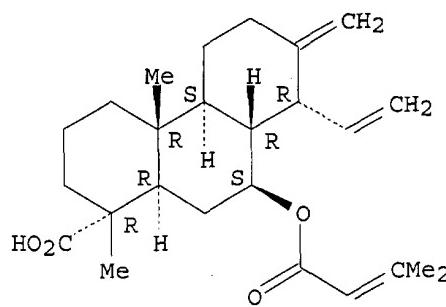
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-9-[(3-methyl-1-oxo-2-but enyl)oxy]-, [1R-(1 α ,4a β ,4b α ,8 α ,8a β ,9 β ,10a α)]- (9CI)
 MF C25 H36 O4

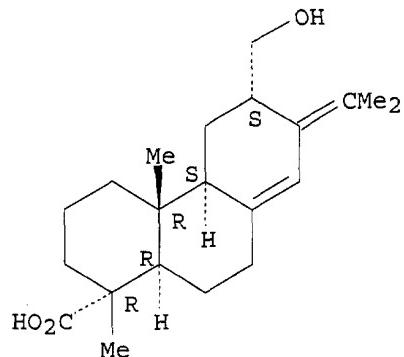
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-6-(hydroxymethyl)-1,4a-dimethyl-7-(1-methylethyldene)-,
 [1R-(1 α ,4 $\alpha\beta$,4b α ,6 α ,10a α)]- (9CI)
 MF C21 H32 O3

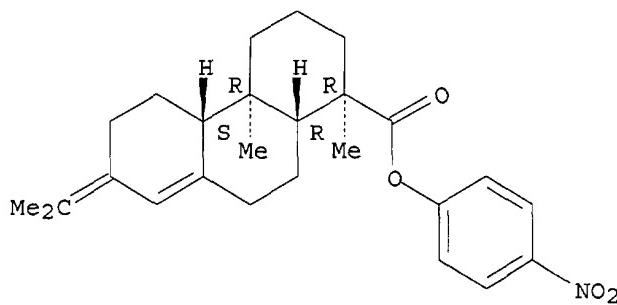
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethyldene)-, 4-nitrophenyl ester,
 [1R-(1 α ,4 $\alpha\beta$,4b α ,10a α)]- (9CI)
 MF C26 H33 N O4

Absolute stereochemistry.

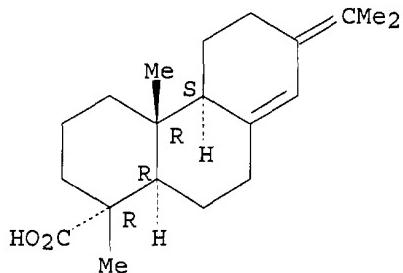


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

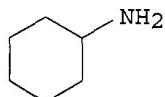
L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Neoabietic acid, compd. with cyclohexylamine (6CI)
 MF C20 H30 O2 . C6 H13 N

CM 1

Absolute stereochemistry.

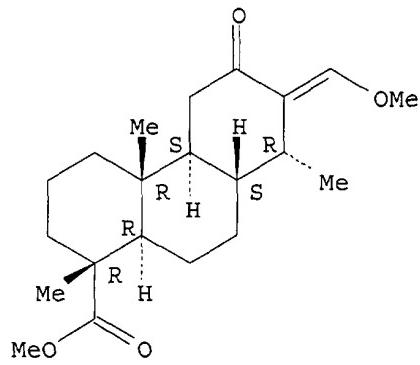


CM 2



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Podocarpan-15-oic acid, 13-(methoxymethylene)-14alpha-methyl-12-oxo-,
 methyl ester, (+)- (8CI)
 MF C21 H32 O4

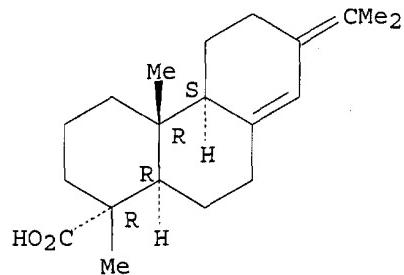
Relative stereochemistry.
 Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
 1,4a-dimethyl-7-(1-methylethyldene)-, ammonium salt, [1R-
 (1 α ,4 $\alpha\beta$,4 $\beta\alpha$,10 $\alpha\alpha$)]- (9CI)
 MF C20 H30 O2 . H3 N

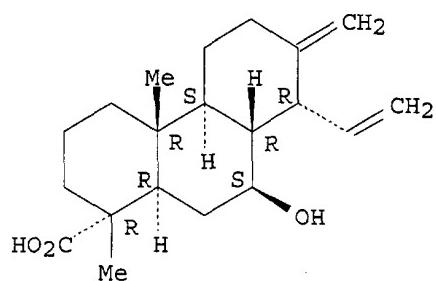
Absolute stereochemistry.



● NH₃

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-9-hydroxy-1,4a-
 dimethyl-7-methylene-, [1R-(1 α ,4 $\alpha\beta$,4 $\beta\alpha$,8 α ,8 $\alpha\beta$,
 9 β ,10 $\alpha\alpha$)]- (9CI)
 MF C20 H30 O3

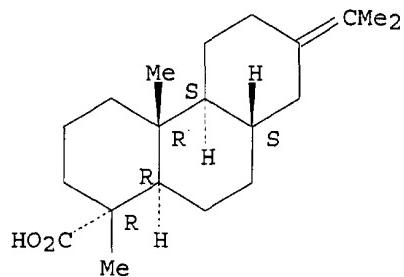
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aR,4bS,8aS,10aR)- (9CI)
 MF C20 H32 O2

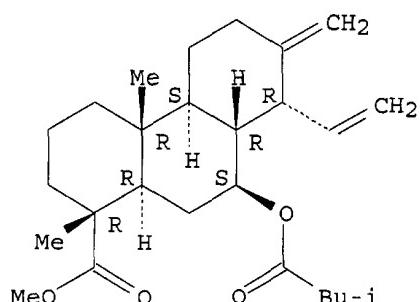
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-9-(3-methyl-1-oxobutoxy)-, methyl ester, [1R-(1a,4aB,4bA,8a,8aB,9B,10aA)]- (9CI)
 MF C26 H40 O4

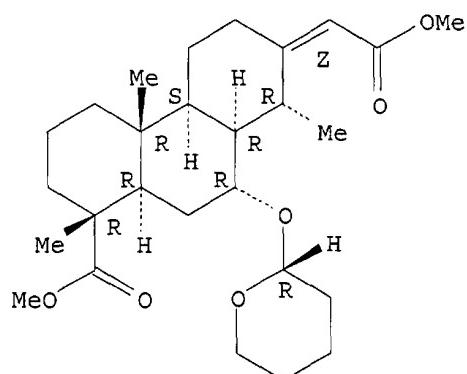
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, [1R-[1 α ,4 α ,4 β ,7Z,8 α ,8 $\alpha\alpha$,9 α (R*) $,10\alpha\alpha$]]- (9CI)
MF C27 H42 O6

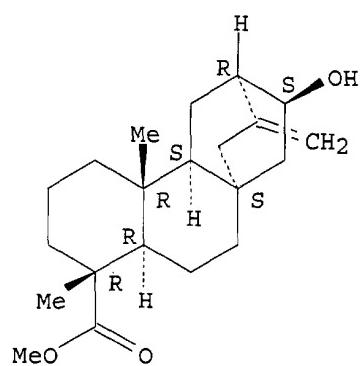
Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN Atis-16-en-18-oic acid, 13-hydroxy-, methyl ester, (4 α ,13S)- (9CI)
MF C21 H32 O3

Absolute stereochemistry.

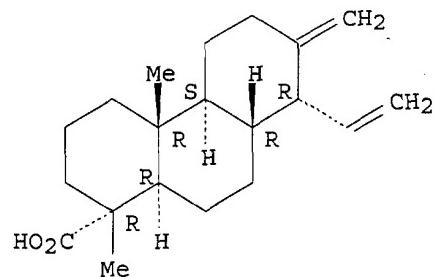


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-

methylene-, [1R-(1 α ,4 $\alpha\beta$,4b α ,8 α ,8 $\alpha\beta$,10a α)
]- (9CI)
MF C20 H30 O2

Absolute stereochemistry.

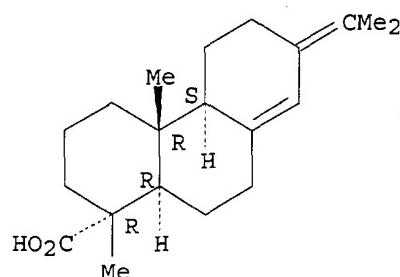


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethyldene)-, [1R-(1 α ,4 $\alpha\beta$,4b.alp ha.,10 $\alpha\alpha$)]-, compd. with N-ethylethanamine (1:1) (9CI)
MF C20 H30 O2 . C4 H11 N

CM 1

Absolute stereochemistry.

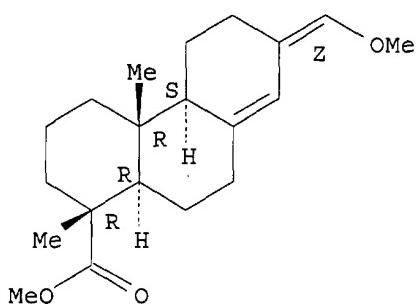


CM 2

H₃C—CH₂—NH—CH₂—CH₃

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-7-(methoxymethylene)-1,4a-dimethyl-, methyl ester, [1R-(1 α ,4 $\alpha\beta$,4 $\beta\alpha$,7 Z ,10 $\alpha\alpha$)]- (9CI)
MF C20 H30 O3

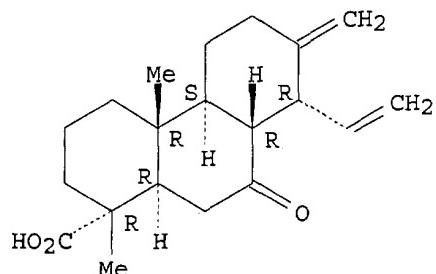
Absolute stereochemistry.
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-9-oxo-, [1R-(1 α ,4a β ,4b α ,8 α ,8a β ,10a.a lpha.)]- (9CI)
 MF C20 H28 O3

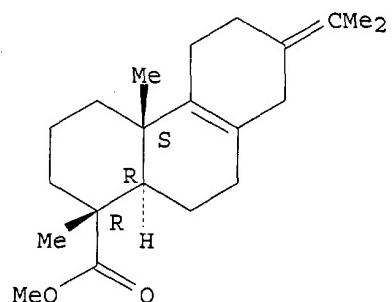
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,5,6,7,8,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethyldene)-, methyl ester, (1R,4aS,10aR)- (9CI)
 MF C21 H32 O2

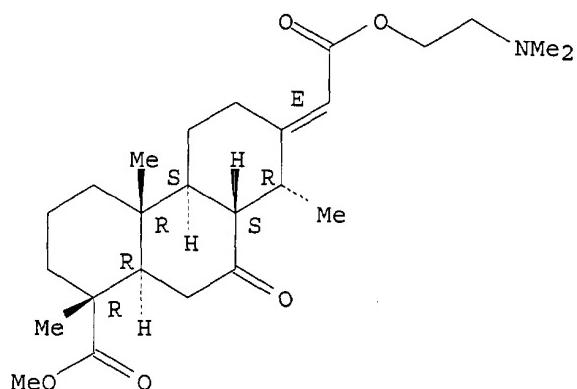
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 7-[2-[2-(dimethylamino)ethoxy]-2-oxoethylidene]tetradecahydro-1,4a,8-trimethyl-9-oxo-, methyl ester,
 hydrochloride, [1R-(1 α ,4a β ,4b α ,7E,8 α ,8a β ,10a.a
 lpha.)]- (9CI)
 MF C25 H39 N O5 . Cl H

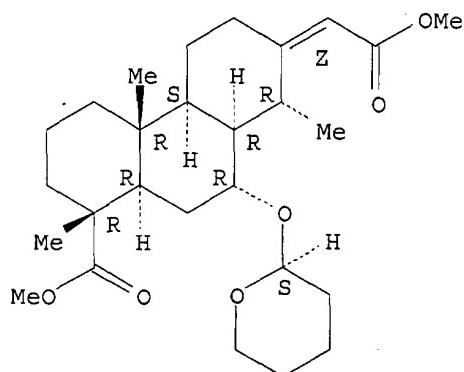
Absolute stereochemistry.
 Double bond geometry as shown.



● HCl

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, [1R-[1 α ,4a β ,4b α ,7Z,8 α ,8a α ,9a(S*)
 ,10a α]]- (9CI)
 MF C27 H42 O6

Absolute stereochemistry.
 Double bond geometry as shown.

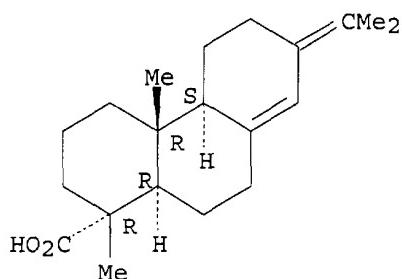


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aR,4bS,10aR)- (9CI)
MF C₂₀ H₃₀ O₂
CI COM

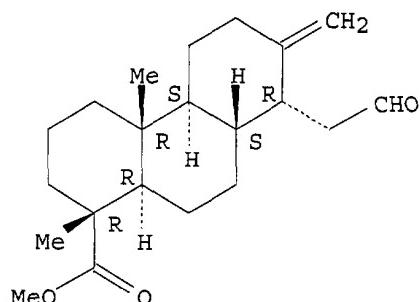
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-methylene-8-(2-oxoethyl)-, methyl ester, [1R-(1 α ,4a β ,4b α ,8 α ,8a β ,10aa)]- (9CI)
MF C₂₁ H₃₂ O₃

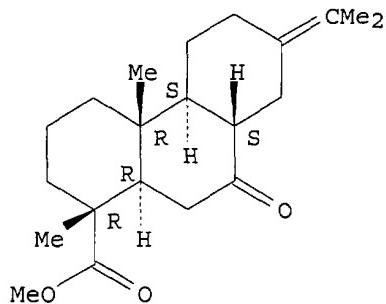
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-(1-methylethylidene)-9-oxo-, methyl ester, [1R-(1 α ,4a β ,4b α ,8a β ,10aa)]- (9CI)
MF C₂₁ H₃₂ O₃

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

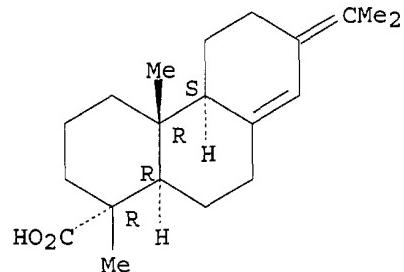
L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
 1,4a-dimethyl-7-(1-methylethyldene)-, [1R-(1 α ,4a β ,4b α ,10
 a α)]-, mixt. with zinc oxide (ZnO) (9CI)
 MF C20 H30 O2 . O Zn
 CI MXS

CM 1

O= Zn

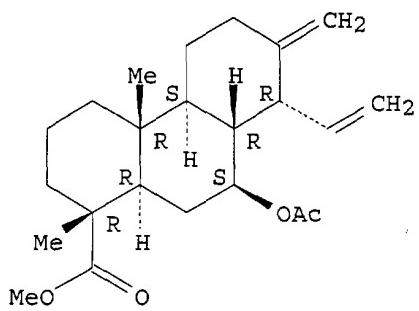
CM 2

Absolute stereochemistry.



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 9-(acetyloxy)-8-ethenyltetradecahydro-1,4a-
 dimethyl-7-methylene-, methyl ester, [1R-(1 α ,4a β ,4b α ,8.al
 pha.,8a β ,9 β ,10a α)]- (9CI)
 MF C23 H34 O4

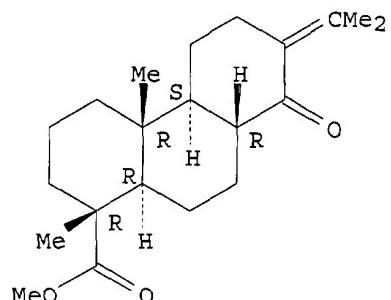
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-(1-methylethyldene)-8-oxo-, methyl ester, [1R-(1 α ,4a β ,4b α ,8a β ,10a α)]- (9CI)
 MF C21 H32 O3

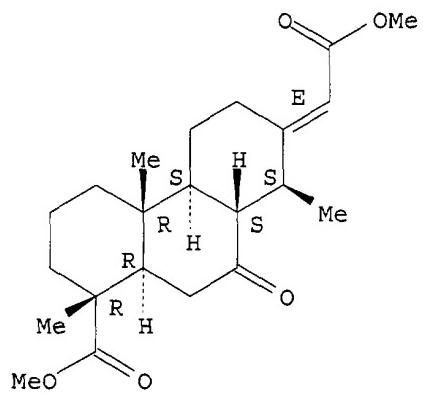
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-oxo-, methyl ester, [1R-(1 α ,4a β ,4b α ,7E,8 β ,8a β ,10a α)]- (9CI)
 MF C22 H32 O5

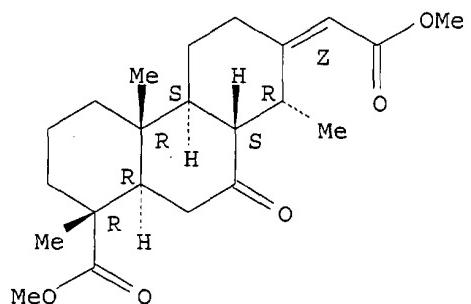
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-oxo-, methyl ester, [1R-(1 α ,4 $\alpha\beta$,4 $\beta\alpha$,7Z,8 α ,8 $\alpha\beta$,10 $\alpha\alpha$)]- (9CI)
 MF C22 H32 O5

Absolute stereochemistry.
 Double bond geometry as shown.

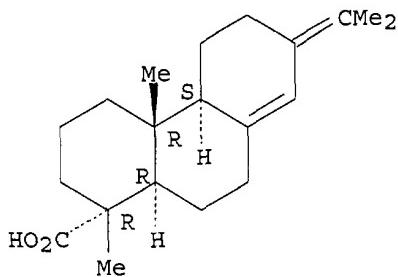


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

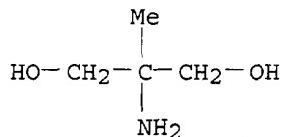
L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, [1R-(1 α ,4 $\alpha\beta$,4 $\beta\alpha$,10 $\alpha\alpha$)]-, compd. with 2-amino-2-methyl-1,3-propanediol (1:1) (9CI)
 MF C20 H30 O2 . C4 H11 N O2

CM 1

Absolute stereochemistry.

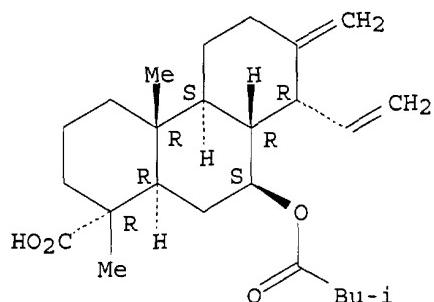


CM 2



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-9-(3-methyl-1-oxobutoxy)-, [1R-(1 α ,4a β ,4b α ,8.al pha.,8a β ,9 β ,10a α)]- (9CI)
 MF C25 H38 O4

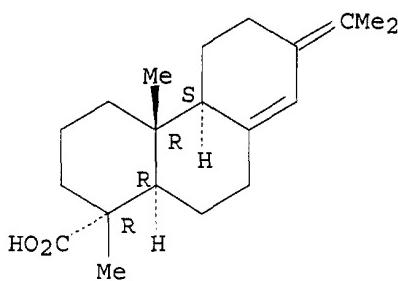
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethyldene)-, manganese salt, [1R-(1 α ,4a β ,4b α ,10a α)]- (9CI)
 MF C20 H30 O2 . x Mn

Absolute stereochemistry.

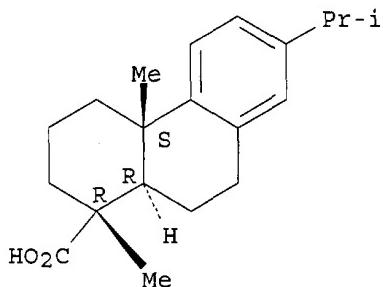


● x Mn(x)

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Oxirane, methyl-, polymer with oxirane, [1R-(1 α ,4 $\alpha\beta$,4 $\beta\alpha$,1 $\alpha\alpha$)]-1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-1-phenanthrenecarboxylate [1R-(1 α ,4 $\alpha\beta$,10 $\alpha\alpha$)]-1,2,3,4,4a,9,10,10a-octahydro-1,4a-dimethyl-7-(1-methylethyl)-1-phenanthrenecarboxylate (9CI)
 MF C₂₀ H₃₀ O₂ . C₂₀ H₂₈ O₂ . (C₃ H₆ O . C₂ H₄ O)_x

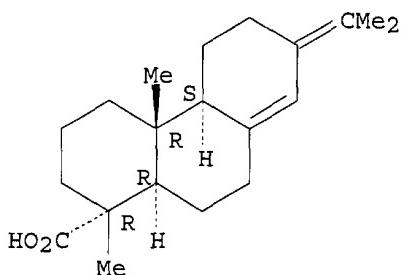
CM 1

Absolute stereochemistry. Rotation (+).



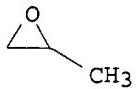
CM 2

Absolute stereochemistry.



CM 3

CM 4

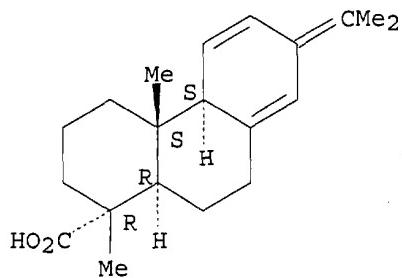


CM 5



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,7,9,10,10a-decahydro-1,4a-dimethyl-7-(1-methylethyldene)-, [1R-(1 α ,4a β ,4b α ,10a.alp ha.)]- (9CI)
 MF C₂₀ H₂₈ O₂

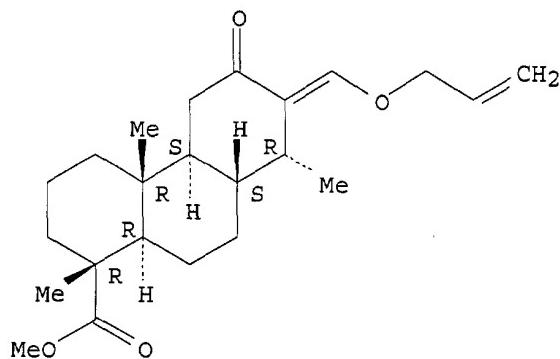
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Podocarpan-15-oic acid, 13-[(allyloxy)methylene]-14 α -methyl-12-oxo-, methyl ester, acetate, (\pm)- (8CI)
 MF C₂₃ H₃₄ O₄

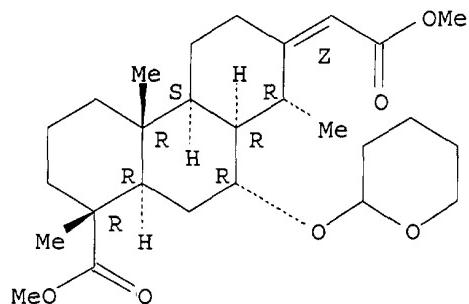
Relative stereochemistry.
 Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, [1R-(1 α ,4a β ,4b α ,7Z,8 α ,8a α ,9 α ,10a α)]- (9CI)
 MF C27 H42 O6

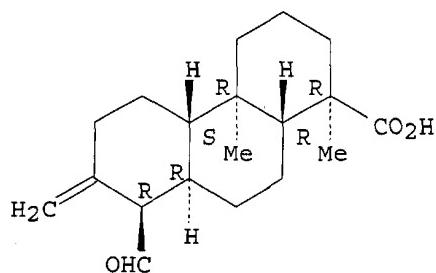
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-formyltetradecahydro-1,4a-dimethyl-7-methylene-, [1R-(1 α ,4a β ,4b α ,8 α ,8a β ,10a α)]- (9CI)
 MF C19 H28 O3

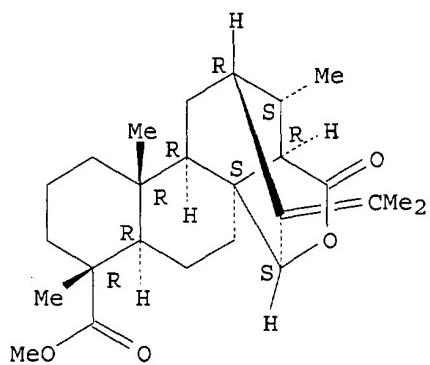
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Atisan-18-oic acid, 15 β -carboxy-14-hydroxy-13-isopropylidene-, γ -lactone, methyl ester (8CI)
 MF C25 H36 O4

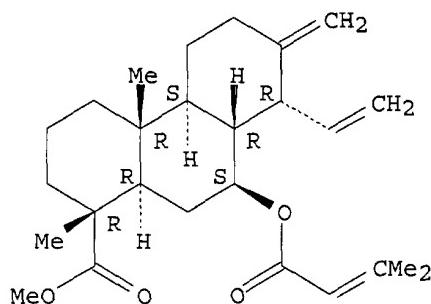
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-9-[(3-methyl-1-oxo-2-butenyl)oxy]-, methyl ester,
 [1R-(1 α ,4a β ,4b α ,8 α ,8a β ,9 β ,10a α)]-
 (9CI)
 MF C26 H38 O4

Absolute stereochemistry.

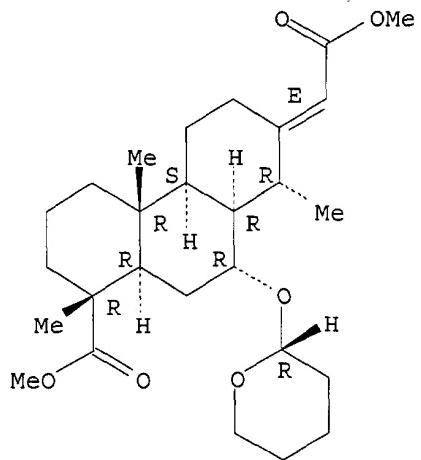


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, [1R-[1 α ,4a β ,4b α ,7E,8 α ,8a α ,9 α (R*)
 ,10a α]]- (9CI)
 MF C27 H42 O6

Absolute stereochemistry.

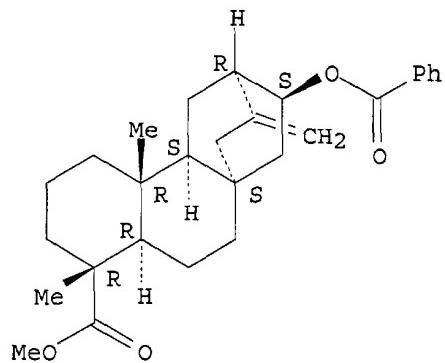
Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Atis-16-en-18-oic acid, 13-(benzoyloxy)-, methyl ester, (4 α ,13S)-
 (9CI)
 MF C28 H36 O4

Absolute stereochemistry.

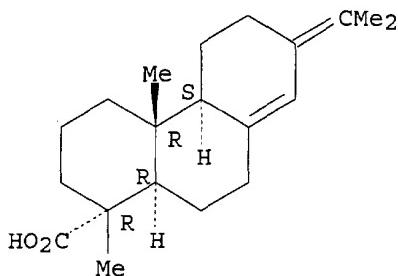


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

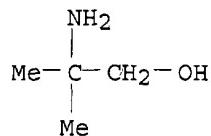
L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN Neoabietic acid, 2-amino-2-methyl-1-propanol salt (6CI)
 MF C20 H30 O2 . C4 H11 N O

CM 1

Absolute stereochemistry.

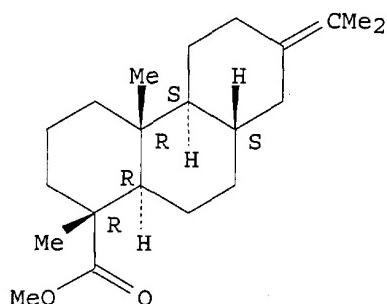


CM 2



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-(1-methylethyldene)-, methyl ester, [1R-(1 α ,4a β ,4b α ,8a. β]
 .,10a α]- (9CI)
 MF C21 H34 O2

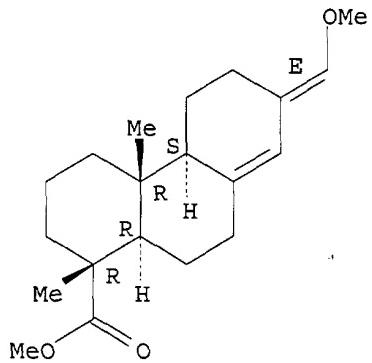
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-7-(methoxymethylene)-1,4a-dimethyl-, methyl ester, [1R-(1 α ,4a β ,4b α ,7E,10a α)]- (9CI)
 MF C20 H30 O3

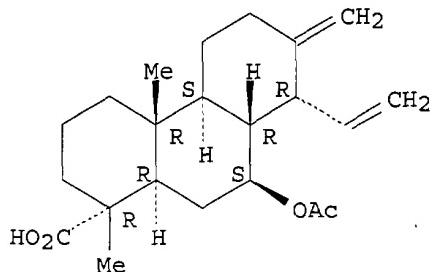
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 9-(acetyloxy)-8-ethenyltetradecahydro-1,4a-dimethyl-7-methylene-, [1R-(1 α ,4a β ,4b α ,8 α ,8a β ,9 β ,10a α)]- (9CI)
 MF C22 H32 O4

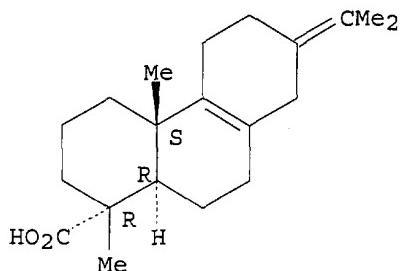
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,5,6,7,8,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aS,10aR)- (9CI)
 MF C20 H30 O2

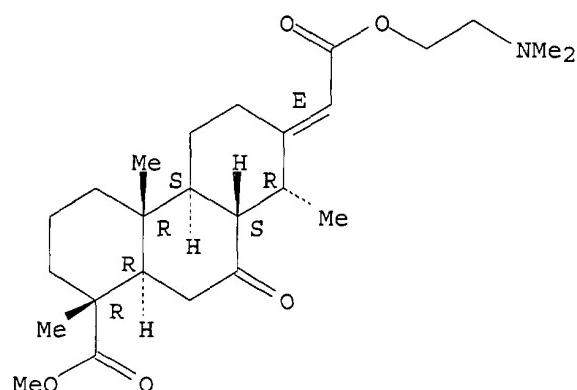
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 7-[2-[2-(dimethylamino)ethoxy]-2-oxoethylidene]tetradecahydro-1,4a,8-trimethyl-9-oxo-, methyl ester,
 [1R-(1 α ,4a β ,4b α ,7E,8 α ,8a β ,10a α)]- (9CI)
 MF C25 H39 N O5
 CI COM

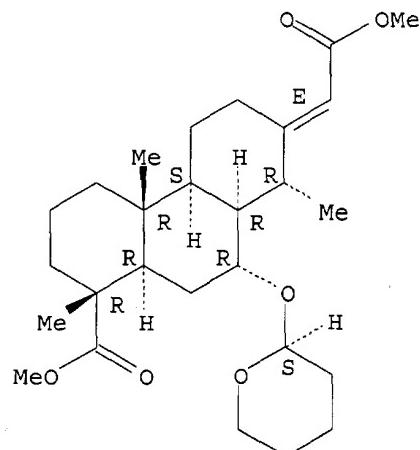
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl ester, [1R-[1 α ,4a β ,4b α ,7E,8 α ,8a α ,9 α (S*) $,10a\alpha$]]- (9CI)
 MF C27 H42 O6

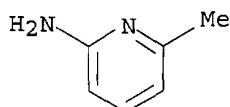
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

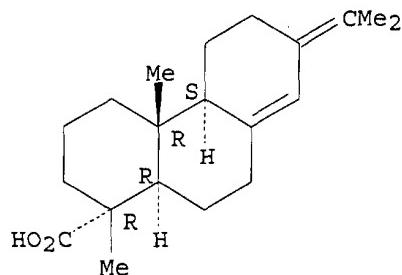
L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aR,4bS,10aR)-, compd. with
6-methyl-2-pyridinamine (1:1) (9CI)
MF C20 H30 O2 . C6 H8 N2

CM 1



CM 2

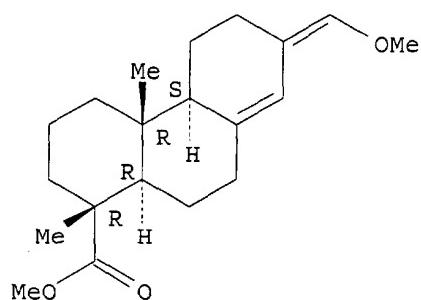
Absolute stereochemistry.



L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-7-
(methoxymethylene)-1,4a-dimethyl-, methyl ester, [1R-
(1 α ,4a β ,4b α ,10a α)]- (9CI)
MF C20 H30 O3

Absolute stereochemistry.

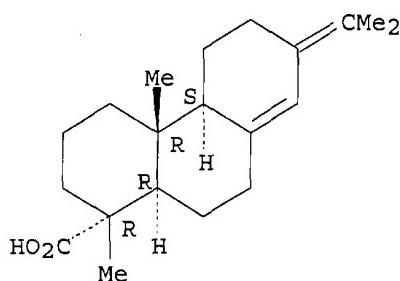
Double bond geometry unknown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
 1,4a-dimethyl-7-(1-methylethyldene)-, sodium salt, [1R-
 (1 α ,4a β ,4b α ;10a α)]- (9CI)
 MF C20 H30 O2 . Na

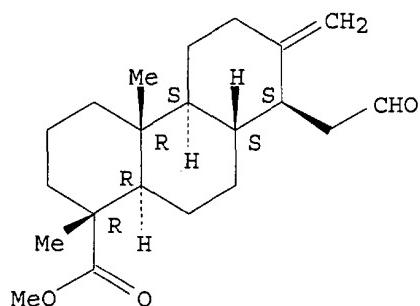
Absolute stereochemistry.



● Na

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-1,4a-dimethyl-7-methylene-8-
 (2-oxoethyl)-, methyl ester, [1R-(1 α ,4a β ,4b α ,8 β ,8a.b
 eta.,10a α)]- (9CI)
 MF C21 H32 O3

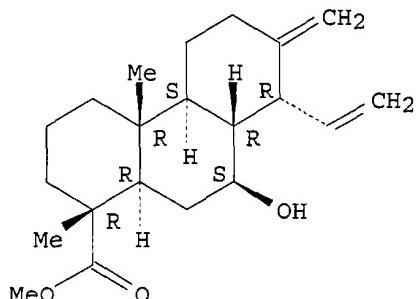
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 8-ethenyltetradecahydro-9-hydroxy-1,4a-
 dimethyl-7-methylene-, methyl ester, [1R-(1 α ,4a β ,4b α ,8.al
 pha.,8a β ,9 β ,10a α)]- (9CI)
 MF C21 H32 O3

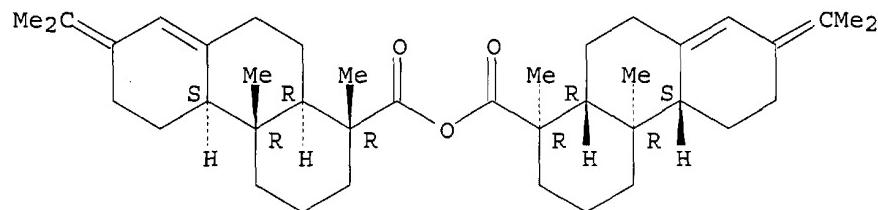
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
 1,4a-dimethyl-7-(1-methylethyldene)-, anhydride,
 (1R,1'R,4aR,4'aR,4bS,4'bS,10aR,10'aR)- (9CI)
 MF C40 H58 O3

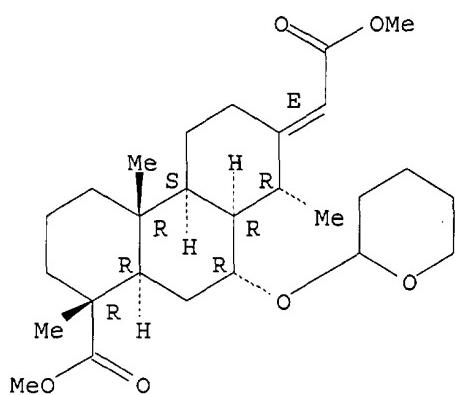
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-
 oxoethylidene)-1,4a,8-trimethyl-9-[(tetrahydro-2H-pyran-2-yl)oxy]-, methyl
 ester, [1R-(1α,4aβ,4bα,7E,8α,8aα,9α,10a
 α)]- (9CI)
 MF C27 H42 O6

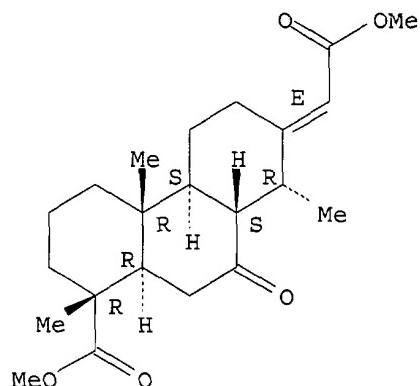
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, tetradecahydro-7-(2-methoxy-2-oxoethylidene)-1,4a,8-trimethyl-9-oxo-, methyl ester, [1R-(1 α ,4a β ,4b α ,7E,8 α ,8a β ,10a α)]- (9CI)
 MF C22 H32 O5

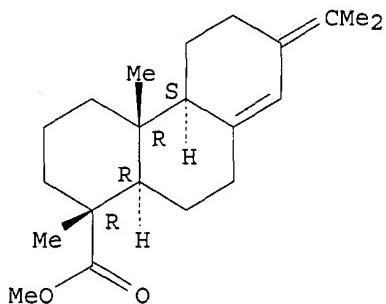
Absolute stereochemistry.
 Double bond geometry as shown.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L6 62 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN
 IN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, methyl ester, (1R,4aR,4bS,10aR)- (9CI)
 MF C21 H32 O2

Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> fil medl hcapl biosis uspatf

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

312.94

313.21

FILE 'MEDLINE' ENTERED AT 11:21:04 ON 02 AUG 2004

FILE 'HCAPLUS' ENTERED AT 11:21:04 ON 02 AUG 2004

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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FILE 'BIOSIS' ENTERED AT 11:21:04 ON 02 AUG 2004

COPYRIGHT (C) 2004 BIOLOGICAL ABSTRACTS INC. (R)

FILE 'USPATFULL' ENTERED AT 11:21:04 ON 02 AUG 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 16

L7 639 L6

=> s immunosuppress? or autoimmun? or multiple sclerosis

L8 477083 IMMUNOSUPPRESS? OR AUTOIMMUN? OR MULTIPLE SCLEROSIS

=> s 17 and 18

L9 4 L7 AND L8

=> dup rem 19

PROCESSING COMPLETED FOR L9

L10 3 DUP REM L9 (1 DUPLICATE REMOVED)

=> d tot ibib abs

L10 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2003:512088 HCAPLUS

DOCUMENT NUMBER: 139:79142

TITLE: Tricyclic terpenes of the family of abietic acid as
RANTES receptor ligands

INVENTOR(S): Saxena, Geeta; Tudan, Christopher R.; Merzouk, Ahmed;
Salari, Hassan

PATENT ASSIGNEE(S): Can.

SOURCE: U.S. Pat. Appl. Publ., 26 pp., Cont.-in-part of U.S.
Ser. No. 881,559.

CODEN: USXXCO

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| US 2003125380 | A1 | 20030703 | US 2001-992550 | 20011113 |
| US 2003092674 | A1 | 20030515 | US 2001-881559 | 20010614 |
| WO 2002102365 | A1 | 20021227 | WO 2002-CA840 | 20020606 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES,
FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK,
SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW,
AM, AZ, BY, KG | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| PRIORITY APPLN. INFO.: | | | US 2001-881559 | A2 20010614 |
| | | | US 2001-992550 | A 20011113 |

OTHER SOURCE(S): MARPAT 139:79142
AB A method of treating a chemokine- or chemokine receptor-mediated disease using a tricyclic terpene compound that binds to one or more RANTES receptors is described. For example, the ability of tricyclic terpenes to competitively inhibit binding of the chemokine ligand RANTES to its receptors (CCR-1, -3, -4, and -5) on THP-1 type cells was demonstrated. Thus neoabietic acid (CTCM 189), sandaraco-pimamic acid, and ammonium pimарате at 4 µg/mL inhibited RANTES binding by 68%, 36%, and 48%, resp. Neoabietic acid showed an almost complete inhibition of RANTES-induced [Ca²⁺]i mobilization in THP-1 cells at the concentration of 5 µM. In accordance with this aspect of the invention, the neoabietic acid or corresponding salts may be used for the treatment of a wide range of inflammatory diseases such as gout, arthritis, osteoarthritis, rheumatoid arthritis, reperfusion injuries, inflammatory bowel diseases, and ARDS.

L10 ANSWER 2 OF 3 USPATFULL on STN
ACCESSION NUMBER: 2003:134585 USPATFULL
TITLE: Tricyclic rantes receptor ligands
INVENTOR(S): Saxena, Geeta, Vancouver, CANADA
Tudan, Christopher R., Vancouver, CANADA
Merzouk, Ahmed, Richmond, CANADA
Salari, Hassan, Delta, CANADA

| NUMBER | KIND | DATE |
|---|------|--------------|
| US 2003092674 | A1 | 20030515 |
| US 2001-881559 | A1 | 20010614 (9) |
| DOCUMENT TYPE: Utility | | |
| FILE SEGMENT: APPLICATION | | |
| LEGAL REPRESENTATIVE: BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD,
SUITE 200, MENLO PARK, CA, 94025 | | |

NUMBER OF CLAIMS: 38
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 1142
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB In various aspects, the invention provides compounds that bind to one or more RANTES receptors for the treatment of chemokine mediated disease states, such as compounds of formula (I): ##STR1##

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2002:977646 HCAPLUS
 DOCUMENT NUMBER: 138:49921
 TITLE: Tricyclic terpenes of the family of abietic acid as RANTES receptor ligands
 INVENTOR(S): Saxena, Geeta; Tudan, Christopher R.; Merzouk, Ahmed; Salari, Hassan
 PATENT ASSIGNEE(S): Chemokine Therapeutics Corporation, Can.
 SOURCE: PCT Int. Appl., 69 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|------------|
| WO 2002102365 | A1 | 20021227 | WO 2002-CA840 | 20020606 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 2003092674 | A1 | 20030515 | US 2001-881559 | 20010614 |
| US 2003125380 | A1 | 20030703 | US 2001-992550 | 20011113 |
| PRIORITY APPLN. INFO.: | | | US 2001-881559 | A 20010614 |
| | | | US 2001-992550 | A 20011113 |

OTHER SOURCE(S): MARPAT 138:49921

AB A method of treating a chemokine- or chemokine receptor-mediated disease using a tricyclic terpene compound that binds to one or more RANTES receptors is described. For example, the ability of tricyclic terpenes to competitively inhibit binding of the chemokine ligand RANTES to its receptors (CCR-1, -3, -4, and -5) on THP-1 type cells was demonstrated. Thus neoabietic acid (CTCM 189), sandaraco-pimamic acid, and ammonium pimarate at 4 µg/mL inhibited RANTES binding by 68%, 36%, and 48%, resp. Neoabietic acid showed an almost complete inhibition of RANTES-induced [Ca²⁺]i mobilization in THP-1 cells at the concentration of 5 µM. In accordance with this aspect of the invention, the neoabietic acid or corresponding salts may be used for the treatment of a wide range of inflammatory diseases such as gout, arthritis, osteoarthritis, rheumatoid arthritis, reperfusion injuries, inflammatory bowel diseases, and ARDS.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s ms
L11 423585 MS

=> s l11 and 17
L12 48 L11 AND L7

=> dup rem
ENTER L# LIST OR (END):l12
PROCESSING COMPLETED FOR L12
L13 46 DUP REM L12 (2 DUPLICATES REMOVED)

=> focus
PROCESSING COMPLETED FOR L13
L14 46 FOCUS L13 1-

=> d ibib abs kwic hitstr 1-5

L14 ANSWER 1 OF 46 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2001:864564 HCAPLUS
DOCUMENT NUMBER: 137:48751
TITLE: GC-MS analysis of oleoresin of three Greek pine species
AUTHOR(S): Papajannopoulos, A. D.; Song, Z. Q.; Liang, Z. Q.; Spanos, J. A.
CORPORATE SOURCE: Forest Research Institute, Vassilika, 57006, Greece
SOURCE: Holz als Roh- und Werkstoff (2001), 59(6), 443-446
CODEN: HOZWAS; ISSN: 0018-3768
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The chemical compns. of oleoresins tapped from *Pinus brutia* Ten., *P. halepensis* Mill., and *P. pinea* L., which grow naturally in Greece, are discussed. The anal. results obtained by GC-MS provide addnl. information to that in the literature. The composition of oleoresin of *P. halepensis* showed no practical differences to that known from earlier research. The oleoresin of *P. brutia* showed a ratio of turpentine/rosin = 23.3/76.5, the presence of 2.1% caryophyllene, and the absence of Δ^3 -carene. Limonene occurs by 79% in the oleoresin of *P. pinea*. Further research is necessary for the oleoresin of *P. pinea*.

TI GC-MS analysis of oleoresin of three Greek pine species

AB . . . Ten., *P. halepensis* Mill., and *P. pinea* L., which grow naturally in Greece, are discussed. The anal. results obtained by GC-MS provide addnl. information to that in the literature. The composition of oleoresin of *P. halepensis* showed no practical differences to . . .

IT Pine (*Pinus brutia*)

Pine (*Pinus halepensis*)

Pine (*Pinus pinea*)

(GC-MS anal. of oleoresins of three Greek pine species)

IT Sesquiterpenes

RL: ANT (Analyte); ANST (Analytical study)

(GC-MS anal. of oleoresins of three Greek pine species)

IT Mass spectrometry

(gas chromatog. combined with; GC-MS anal. of oleoresins of three Greek pine species)

IT Gas chromatography

(mass spectrometry combined with; GC-MS anal. of oleoresins of three Greek pine species)

IT Resins

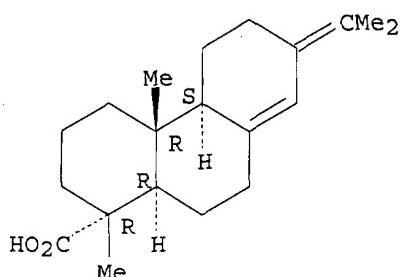
RL: AMX (Analytical matrix); ANST (Analytical study)

(oleoresins; GC-MS anal. of oleoresins of three Greek pine species)

IT 77-53-2, Cedrol 79-54-9, Levopimaric acid 79-92-5, Camphene 80-56-8, α -Pinene 87-44-5, Caryophyllene 88-84-6, β -Guaiene 123-35-3, β -Myrcene 127-27-5, Pimamic acid 127-91-3, β -Pinene 138-86-3, Limonene 140-67-0, p-Allylanisole 469-61-4, α -Cedrene 471-74-9, Sandaracopimaric acid 471-77-2, Neoabietic acid 472-39-9, Pimalal 475-20-7, Longifolene 489-39-4, Aromadendrene 514-10-3, Abietic acid 515-13-9, β -Elemene 586-62-9, Terpinolene 1135-66-6, Isolongifolene 1686-30-2, α -Myrcene 1740-19-8, Dehydroabietic acid 1945-53-5, Palustric acid 2761-77-5, Communie acid 3625-01-2, 8,15-Isopimaric acid 3737-85-7 3855-14-9, Sandaracopimalar 5835-26-7, Isopimaric acid 6753-98-6, α -Humulene 7721-79-1, Atis-15-ene 10385-78-1 13466-78-9, Δ^3 -Carene 18252-44-3, β -Copaene 18492-76-7, 6,8,11,13-Abietatetraenoic acid 19402-33-6, 8,13(15)-Abietadienoic acid 29873-99-2, γ -Elemene 33880-83-0, β -Elemene 41577-36-0, 8,13-Abietadiene 76235-98-8, 7 α -Hydroxydehydroabietic acid 83905-82-2, 7,13,15-Abietatrienoic acid

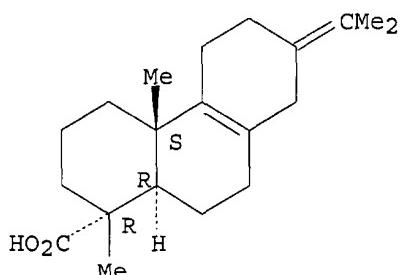
RL: ANT (Analyte); ANST (Analytical study)
 (GC-MS anal. of oleoresins of three Greek pine species)
 IT 471-77-2, Neoabietic acid 19402-33-6,
 8,13(15)-Abietadienoic acid
 RL: ANT (Analyte); ANST (Analytical study)
 (GC-MS anal. of oleoresins of three Greek pine species)
 RN 471-77-2 HCPLUS
 CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
 1,4a-dimethyl-7-(1-methylethyldene)-, (1R,4aR,4bS,10aR)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



RN 19402-33-6 HCPLUS
 CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,5,6,7,8,9,10,10a-dodecahydro-
 1,4a-dimethyl-7-(1-methylethyldene)-, (1R,4aS,10aR)- (9CI) (CA INDEX
 NAME)

Absolute stereochemistry.



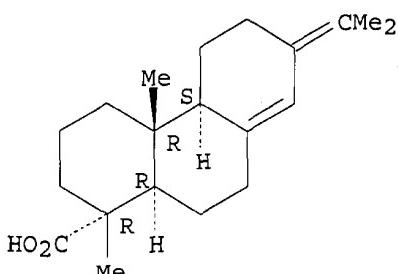
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 2 OF 46 HCPLUS COPYRIGHT 2004 ACS on STN
 ACCESSION NUMBER: 2003:73600 HCPLUS
 DOCUMENT NUMBER: 139:86873
 TITLE: Separation and identification of chemical components
 of Masson pine resin by using GC-MS analysis
 AUTHOR(S): Wang, Xu; Zhan, Huaiyu; Luo, Jusheng; Liu, Qianjun;
 Wei, He
 CORPORATE SOURCE: State Key Lab of Pulp and Paper Engineering, South
 China University of Technology, Canton, 510640, Peop.
 Rep. China
 SOURCE: Zhongguo Zaozhi Xuebao (2002), 17(2), 23-27
 CODEN: ZXUEJ; ISSN: 1000-6842
 PUBLISHER: Zhongguo Zaozhi Zazhishe
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese
 AB Masson pine tall oil, as a substitute for masson pine resin after kraft
 pulping, was separated by ether-NaOH system into acidic components and neutral
 components. The chemical components were identified by GC-MS anal.

The results showed that resin acids and unsatd. fatty acids were the absolute majorities in the acidic components. The compds. in the neutral components were too complicated to identify one by one exactly. But it was still clear that sterol was the representative material and terpenes also accounted for a higher proportion.

- TI Separation and identification of chemical components of Masson pine resin by using GC-MS analysis
- AB . . . after kraft pulping, was separated by ether-NaOH system into acidic components and neutral components. The chemical components were identified by GC-MS anal. The results showed that resin acids and unsatd. fatty acids were the absolute majorities in the acidic components. The . . .
- IT Pine (Pinus massoniana)
(separation and identification of chemical components of Masson pine resin by using GC-MS anal.)
- IT 57-10-3, Hexadecanoic acid, analysis 60-33-3, 9,12-Octadecadienoic acid (9Z,12Z)-, analysis 83-47-6, γ -Sitosterol 84-69-5, Diisobutyl phthalate 84-74-2, Dibutyl phthalate 112-79-8 112-85-6, Behenic acid 117-81-7, Dioctyl phthalate 127-27-5, Pimamic acid 471-77-2, Neoabietic acid 514-10-3, Abietic acid 514-10-3D, Abietic acid, dehydrogenated 544-76-3, n-Hexadecane 628-97-7, Ethyl hexadecanoate 629-96-9, n-Eicosanol 1839-11-8, 9,11-Linoleic acid 3386-33-2, 1-Chlorooctadecane 5918-29-6, 14-Methylhexadecanoic acid 6114-18-7 28290-79-1 67145-62-4
RL: ANT (Analyte); ANST (Analytical study)
(separation and identification by gas chromatog. and mass spectrometric anal.)
- IT 471-77-2, Neoabietic acid
RL: ANT (Analyte); ANST (Analytical study)
(separation and identification by gas chromatog. and mass spectrometric anal.)
- RN 471-77-2 HCPLUS
- CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aR,4bS,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

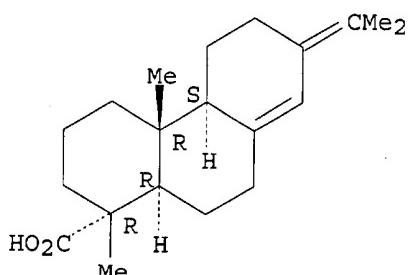


L14 ANSWER 3 OF 46 HCPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1985:620458 HCPLUS
DOCUMENT NUMBER: 103:220458
TITLE: The analysis of toxic and nonconventional pollutants by FSOT GC/MS
AUTHOR(S): Turner, Stephen A.; Wallin, Bruce K.
CORPORATE SOURCE: E. C. Jordan Co., Portland, ME, 04112-7050, USA
SOURCE: Tappi Journal (1985), 68(8), 108-13
CODEN: TAJODT; ISSN: 0734-1415
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fused SiO₂ open tabular gas chromatog.-mass spectrometry (FSOT GC/MS) proved applicable to the determination of semivolatile toxic and nonconventional organic pollutants identified in pulp and paper mill

effluents. Preparation and anal. conditions, precision and accuracy results of the anal., and the associated assurance program used in the assessment of the technique are presented.

- TI The analysis of toxic and nonconventional pollutants by FSOT GC/MS
AB Fused SiO₂ open tabular gas chromatog.-mass spectrometry (FSOT GC/MS) proved applicable to the determination of semivolatile toxic and nonconventional organic pollutants identified in pulp and paper mill effluents. Preparation . . .
IT 60-33-3, analysis 79-54-9 87-86-5 88-06-2 95-95-4 112-80-1,
analysis 120-83-2 127-27-5 463-40-1 471-74-9 471-77-2
514-10-3 1740-19-8 1945-53-5 2443-39-2 2460-49-3 2539-17-5
2668-24-8 5835-26-7 31135-63-4 57055-38-6 57055-39-7 57057-83-7
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in wastewater, fused silica open tubular gas chromatog.-mass spectrometry in)
IT 471-77-2
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in wastewater, fused silica open tubular gas chromatog.-mass spectrometry in)
RN 471-77-2 HCPLUS
CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aR,4bS,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L14 ANSWER 4 OF 46 HCPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1996:684876 HCPLUS
DOCUMENT NUMBER: 126:20316
TITLE: Determination of resin acids in pulp mill EOP bleaching process effluent
AUTHOR(S): Dethlefs, Friederike; Stan, Hans Juergen
CORPORATE SOURCE: Inst. Food Chem., Tech. Univ. Berlin, Berlin, D-13355, Germany
SOURCE: Fresenius' Journal of Analytical Chemistry (1996), 356(6), 403-410
CODEN: FJACES; ISSN: 0937-0633

PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Resin acids, tricyclic diterpenoids as natural constituents of the wood from conifers are released during the manufacture of pulp and paper. These acids are very resistant to chemical degradation and survive the pulping and also the EOP bleaching process (EOP = alkaline extraction, oxygen, and peroxide).
Resin acids were extracted from alkaline medium using liquid-liquid extraction with t-Bu Me ether and solid phase extraction with RP C18 adsorbent and highly porous styrene-divinylbenzene copolymer. After conversion of the acids to their

pentafluorobenzyl esters, the exts. were analyzed by GC/MS using a 25 m OV17 capillary column. Recovery values for single resin acids were determined by all 3 extraction methods. The solid phase extraction methods were applied

to the anal. of the EOP effluent from a pulp mill bleaching process.

Fourteen different resin acids and one resin acid Me ester were identified in the effluent. One of these was an oxo resin acid which might well be a product of the bleaching process.

AB . . . adsorbent and highly porous styrene-divinylbenzene copolymer. After conversion of the acids to their pentafluorobenzyl esters, the exts. were analyzed by GC/MS using a 25 m OV17 capillary column. Recovery values for single resin acids were determined by all 3 extraction methods..

IT Resin acids

RL: ANT (Analyte); ANST (Analytical study)
(determination in pulp mill EOP bleaching process effluent by GC/MS)

IT Cellulose pulp
Wastewater

(resin acids determination in pulp mill EOP bleaching process effluent by

GC/

MS)

IT 79-54-9, Levopimaric acid 127-27-5, Pimamic acid 471-74-9,
Sandaracopimaric acid 471-77-2, Neoabietic acid 514-10-3,
Abietic acid 1235-74-1, Dehydroabietic acid methyl ester 1740-19-8,
Dehydroabietic acid 1945-53-5, Palustric acid 5835-26-7, Isopimaric
acid 10037-26-0, O-Methylpodocarpic acid 18684-55-4,
7-Oxo-dehydroabietic acid 117536-59-1, Secodehydroabietic acid

RL: ANT (Analyte); ANST (Analytical study)

(resin acids determination in pulp mill EOP bleaching process effluent by

GC/

MS)

IT 471-77-2, Neoabietic acid

RL: ANT (Analyte); ANST (Analytical study)

(resin acids determination in pulp mill EOP bleaching process effluent by

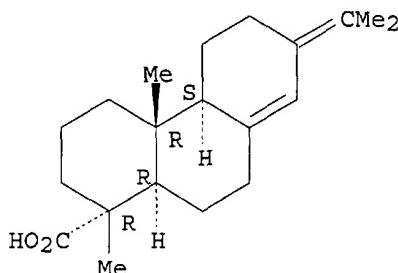
GC/

MS)

RN 471-77-2 HCPLUS

CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-
1,4a-dimethyl-7-(1-methylethyldiene)-, (1R,4aR,4bS,10aR)- (9CI) (CA INDEX
NAME)

Absolute stereochemistry.



L14 ANSWER 5 OF 46 HCPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:388926 HCPLUS

DOCUMENT NUMBER: 139:41301

TITLE: Direct determination of resin and fatty acids in
process waters of paper industries by liquid
chromatography/mass spectrometry

AUTHOR(S): Rigol, A.; Latorre, A.; Lacorte, S.; Barcelo, D.;
Lacorte, S.

CORPORATE SOURCE: Departament de Quimica Analitica, Universitat de Barcelona, Diagonal 647, Barcelona, 08028, Spain
SOURCE: Journal of Mass Spectrometry (2003), 38(4), 417-426
CODEN: JMSPFJ; ISSN: 1076-5174
PUBLISHER: John Wiley & Sons Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Liquid chromatog./mass spectrometry (LC/MS)-based methods were developed for the anal. of 10 resin acids and five fatty acids in process waters of paper industries. No fragmentation of target compds. was observed using atmospheric pressure chemical ionization (APCI) with neg. ionization.

The [M - H]⁻ ion permitted the individual quantification of fatty and aromatic resin acids, whereas the nonarom. resin acids presented a single and common ion at m/z 301. Separation with two columns of different polarity permitted peak confirmation. The method that used a C8 column with iso-PrOH in the mobile phase allowed a certain separation and identification of the nonarom. resin acids, whereas the method using a C18 column provided detection limits 10-fold lower for fatty acids. Limits of detection were 0.10 ng for all compds. Direct sample introduction was compared with liquid-liquid extraction, with similar recoveries (70-101%). Whereas slightly lower detection limits were obtained with liquid-liquid extraction, better reproducibility was observed for direct sample introduction. Resin and fatty acids were determined in process waters of several paper industries. Palmitic, dehydroabietic and nonarom. resin acids were encountered in most H₂O samples, at levels between 22 and 403 µg L⁻¹. LC/ MS with direct sample introduction is a good alternative to traditional liquid-liquid extraction and gas chromatog. for the anal. of such compds. since no derivatization was required and sample manipulation was minimal.

AB Liquid chromatog./mass spectrometry (LC/MS)-based methods were developed for the anal. of 10 resin acids and five fatty acids in process waters of paper industries... . . Palmitic, dehydroabietic and nonarom. resin acids were encountered in most H₂O samples, at levels between 22 and 403 µg L⁻¹. LC/ MS with direct sample introduction is a good alternative to traditional liquid-liquid extraction and gas chromatog. for the anal. of such.

ST resin fatty acid detn paper industry water LC MS

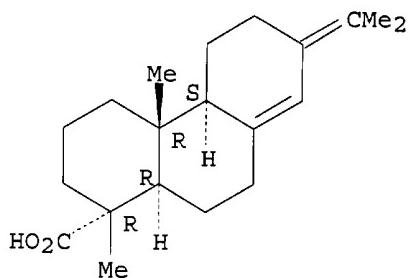
IT 57-10-3, Palmitic acid, analysis 57-11-4, Stearic acid, analysis 60-33-3, Linoleic acid, analysis 79-54-9, Levopimaric acid 112-80-1, Oleic acid, analysis 127-27-5, Pimaric acid 471-74-9, Sandaracopimaric acid 471-77-2, Neoabietic acid 506-12-7, Margaric acid 514-10-3, Abietic acid 1740-19-8, Dehydroabietic acid 1945-53-5, Palustric acid 5835-26-7, Isopimaric acid 57055-39-7, Dichlorodehydroabietic acid 65281-76-7, 14-Chlorodehydroabietic acid 65310-45-4, 12-Chlorodehydroabietic acid
RL: ANT (Analyte); ANST (Analytical study)
(direct determination of resin and fatty acids in process waters of paper industries by liquid chromatog./mass spectrometry)

IT 471-77-2, Neoabietic acid
RL: ANT (Analyte); ANST (Analytical study)
(direct determination of resin and fatty acids in process waters of paper industries by liquid chromatog./mass spectrometry)

RN 471-77-2 HCPLUS

CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,7,9,10,10a-dodecahydro-1,4a-dimethyl-7-(1-methylethylidene)-, (1R,4aR,4bS,10aR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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